

## IN THE CLAIMS

1. (previously presented) A cardioprotective composition comprising a therapeutically effective amount of a mixture of pyruvate, at least one antioxidant, at least one lipid and ceruloplasmin or a functional derivative thereof, wherein said pyruvate, antioxidant, lipid and ceruloplasmin are present in such an amount as to have a synergistic cardioproactive effect on cardiac cells.

2. (cancelled, without prejudice)

3. (previously presented) The cardioprotective composition of claim 1, wherein said at least one lipid consists of at least one fatty acid selected from the group consisting of monoglycerides, diglycerides, triglycerides and free fatty acids.

4. (previously presented) The cardioprotective composition of claim 1, wherein said at least one lipid consists of a mixture of saturated and unsaturated fatty acids.

5. (original) The cardioprotective composition of claim 4, wherein said fatty acids are present in an amount varying from about 0.001% v/v to about 1% v/v, by weight of the cardioprotective composition.

6. (original) The cardioprotective composition of claim 1 wherein ceruloplasmin or its functional derivative is purified from blood using an one-step affinity chromatography on aminoethyl-agarose.

7. (previously presented) The cardioprotective composition of claim 1, wherein ceruloplasmin or its functional derivative is present in an amount varying from about 0.05  $\mu\text{M}$  to about 10  $\mu\text{M}$ .

8. (previously presented) The cardioprotective composition of claim 1, wherein said pyruvate is selected from the group consisting of pyruvic acid and pharmaceutically acceptable salts of pyruvic acid, prodrugs of pyruvic acid, and mixtures thereof.

9. (previously presented) The cardioprotective composition of claim 1, wherein said pyruvate is present in said composition in an amount varying from about 0.01 mM to about 100 mM.

10. (original) The cardioprotective composition of claim 1, wherein said at least one antioxidant is selected from lipid-soluble antioxidants.

11. (previously presented) The cardioprotective composition of claim 1, wherein said at least one antioxidant is selected from the group consisting of Vitamin A, carotene, Vitamin E and pharmaceutically acceptable salts thereof.

12. (original) The cardioprotective composition of claim 1, wherein said at least one antioxidant is selected from the group consisting of Vitamin E, Vitamin E acetate and analogues of Vitamin E.

13. (original) The cardioprotective composition of claim 1, wherein said at least one antioxidant is present in an amount varying from about 0.01 unit/ml to about 10 unit/ml of said composition.

14. (previously presented) The cardioprotective composition of claim 1, further comprising an agent selected from the group consisting of metal chelators, metal scavengers, proteinic metal chelators, proteinic scavengers, preserving agents, solubilizing agents, stabilizing agents, wetting agents, emulsifiers, salts, buffers and coating agents.

15. (previously withdrawn without prejudice) A method for treating a heart oxidative stress related condition comprising the administration to a patient in need

thereof of a therapeutically effective amount of an antioxidative composition comprising pyruvate, at least one antioxidant, at least one lipid and ceruloplasmin and/or a functional derivative thereof.

16. (previously withdrawn without prejudice) A method for treating a heart oxidative stress related condition comprising:  
administering to a patient in need thereof of a therapeutically effective amount of an antioxidative composition comprising: pyruvate, at least one antioxidant and ceruloplasmin and/or a functional derivative thereof; and  
providing into blood circulation of said patient at least one lipid having a synergistic therapeutic effect on cardiac cells in combination with said antioxidative composition.

17. (previously withdrawn without prejudice) The method of claim 16, wherein said at least one lipid is provided to said patient by increasing its lipidic blood level ratio through its diet.

18. (previously withdrawn without prejudice) The method of claim 16, wherein said heart oxidative stress related condition is an heart attack/failure, ischemic cardiopathy, or handling an heart before and during an heart transplant.

19. (previously withdrawn without prejudice) A method for the treatment of cardiac cells, comprising contacting said cells with a therapeutically effective amount of an antioxidative composition comprising pyruvate, at least one antioxidant, at least one lipid and ceruloplasmin and/or a functional derivative thereof.

20. (previously withdrawn without prejudice) The method of claim 19, for protecting cardiac cells *in vitro*, *in vivo* and *ex vivo* against an oxidative stress related condition.

21. (previously withdrawn without prejudice) The method of claim 19, for the treatment of heart attack/failure, the treatment of ischemic cardiopathy, the conservation

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of heart before and during transplantation, or the treatment heart oxidative stress related condition(s).

22. (previously withdrawn without prejudice) A method for preparing a cardioprotective composition, comprising the steps of:

- a) providing a therapeutically effective amount of i) pyruvate, ii) at least one antioxidant, iii) at least one lipid, and iv) ceruloplasmin and/or a functional derivative thereof; and
- b) mixing together the components i), ii), iii) and iv) of step a) in a physiological buffered saline solution to obtain a homologous pharmaceutically acceptable suspension.